AccuTech Environmental Services, Inc.
CONSULTANTS • PROJECT MANAGERS

43 WEST FRONT ST. – REAR SUITE • KEYPORT, NEW JERSEY 07735 • Phone 732-739-6444 • Fax: 732-739-0451

June 29, 2007

RECEIVED
JUN 29 2007
By__________

HAND DELIVER

Donna L. Gaffigan –Case Manager
Bureau of Case Management
New Jersey Department of Environmental Protection
401 East State Street
Trenton, New Jersey 08625

RE: Melon Leasing Corporation
109-113 Jacobus Avenue
Kearny, Hudson County, New Jersey
NJDEP Program Interest ID: 001834
Remedial Investigation Report

Dear Ms. Gaffigan:

On behalf of Melon Leasing Corporation, AccuTech Environmental Services, Inc. (AccuTech) submits the Remedial Investigation Report for the above referenced facility. Pursuant to our telephone conversation of June 28, 2007, the RIR is being submitted without the required Report Certification, as Mr. Moscatello, the President of Melon Leasing Corporation has been unavailable to sign the certification. It is anticipated that the Certification will be signed and sent directly to you early next week. Your accommodation of this matter is greatly appreciated.

If you should have any questions regarding this RIR, please do not hesitate to contact either me or Bret Fischer at (732) 739-6444.

Sincerely,

T.H. Davis
Thomas H. Davis
Senior Associate

cc. William Moscatello, Melon Leasing Corporation
Brian E. Fleisig, Esq.; Pearce, Fleisig, LLC

REMEDIAL INVESTIGATION REPORT

Melon Leasing Corporation
109-113 Jacobus Avenue
Block 289 Lot 15/15R
Kearny, Hudson County, New Jersey
Program Interest No. 001834

Prepared for:

Melon Leasing Corporation
1 Worth Court
Stewart, Florida 34996

Prepared by:

AccuTech Environmental Services, Inc.
43 West Front Street – Rear Suite
Keyport, New Jersey 07735
Phone: (732)739-6444 Fax: (732) 739-0451

Thomas H. Davis
Senior Associate

Harry J. Moscatello
President

June 29, 2007

REMEDIAL INVESTIGATION REPORT

Melon Leasing Corporation
109-113 Jacobus Avenue
Block 289 Lot 15/15R
Kearny, Hudson County, New Jersey
Program Interest No. 001834

Table of Contents

List of Tables

REMEDIAL INVESTIGATION REPORT

Melon Leasing Corporation
109-113 Jacobus Avenue
Block 289 Lot 15/15R
Kearny, Hudson County, New Jersey
Program Interest No. 001834

Table of Contents

List of Tables

Melon Leasing Corporation
109-113 Jacobus Avenue
Block 289 Lot 15/15R
Kearny, Hudson County, New Jersey
Program Interest No. 001834

Table of Contents

List of Figures

List of Appendices

1.0 INTRODUCTION

AccuTech Environmental Services, Inc. (AccuTech) was retained by Melon Leasing Corporation to prepare a Remedial Investigation Report (RIR) for their 109-113 Jacobus Avenue, Kearny, Hudson County New Jersey property. Figure 1 is a 7.5-minute topographic map section, which depicts the location of the Melon Leasing Corporation property (herein referred to as the Melon Leasing property. A Remedial Investigation Workplan (RIW), dated August 22, 2006 was approved by the New Jersey Department of Environmental Protection (NJDEP) on March 22, 2007 (letter included as Appendix 1), and this RIR has been completed in accordance with the NJDEP approved RIW.

A *Preliminary Assessment Report* was prepared by Sadat Associates, Inc. in May 2000 that details the history of the Melon Leasing property. A brief overview of the Melon Leasing property, as taken from Sadat's Preliminary Assessment is provided below.

According to the chain of title for the site, discussions with Melon Leasing Corporation personnel, and a review of the May 2000 *Preliminary Assessment Report*, the following chronology of ownership and operations was developed for the property:

Table 1
Ownership & Occupancy History

Owner:	**Dates:**
Melon Leasing Corporation	2000 – Present
PSE&G	1924 – 2000
The Holland Company	Unknown – 1924
Edward F. Terry Manufacturing Company (Lot 15R only)	Unknown – 2000
Newark Meadows Improvement Corporation (Lot 15R only)	Unknown – 2000
Occupant:	
Melon Leasing Corporation	1981 – Present
Other Tenants:	
Guaranteed Overnight Delivery, general trucking	1987 – 1998
William Scotsman, Inc.. office trailer parking	January 1995 – November 1995
Paco Trucking Co., Inc., general trucking, trailer parking	1998 – 1999
US Xpress, Inc., general trucking	1998 – ~2004
Communications Construction Group, Inc., office, trailer parking	1998 – 1999
Quality Services of New Jersey, general trucking	1999 – ~2004
CSX Real Property, container storage	1999 - ~2004
Warren R. & Virginia Disch, barge mooring (Lot 15R only)	1981 – Present
VC Transport, Inc. Container Trailer Parking	2004 - Present

The Melon Leasing property is used primarily as a utility right-of-way for overhead electric wires, underground liquid petroleum pipelines, and underground fiber optic lines. In addition, Melon Leasing Corporation leases portions of the property to various trucking and other companies for tractor trailer parking and office trailer storage. In accordance with the Certificate of Occupancy issued by Kearny for the Melon Leasing property, all trailers and/or other containers stored at the property are empty. Prior to this usage, S&W Waste used a portion of the Melon Leasing property for parking and operated a Quality Assurance dock in the northeast corner of the property in the area currently occupied by temporary office trailers.

2.0 ENVIRONMENTAL SETTING

2.1 Location of Site and Vicinity Characteristics

The Melon Leasing property is located at Block 289, Lots 15 and 1 5R on Jacobus Avenue in Kearny, Hudson County, New Jersey, and consists of an undeveloped parcel used for truck parking and staging of temporary office trailers. The street address is 109-113 Jacobus Avenue, Kearny, New Jersey, 07032. The Melon Leasing property was assigned ISRA Case #99347, as identified in the January 16, 2000 Remediation Agreement signed by Melon Leasing Corporation.

The Melon Leasing property consists of an undeveloped, 7.87-acre parcel with four temporary office trailers in the northeast corner and several tractor trailer parking areas. A paved walkway leads to the office trailers. A small guard house is located in the center of the eastern edge of the Melon Leasing property. Five large steel towers supporting power lines are present along the southern boundary of the Melon Leasing property, and a Hess underground petroleum pipeline right-of-way exists in the northern portion of the property. The Melon Leasing property is bounded to the north by MAC, to the east by Jacobus Avenue and trailer / container parking areas, to the south by S&W Waste, Inc., and to the west by the Passaic River. The northern, southern, and eastern boundaries of the Melon Leasing property are contained by a chain link fence.

The Melon Leasing property is currently used both as a utility right-of-way and as a tractor trailer staging area with minor office functions. The majority of the Melon Leasing property has been paved, as needed overtime, using asphalt millings. Areas beneath the electrical towers are unpaved. In addition, an area of black sandy soil adjacent to the Passaic River has not been paved. A barrier consisting of concrete debris has been placed along the western edge of the Melon Leasing property to prevent tractor trailers from entering the river. General land use in the vicinity of the property is heavy industrial/commercial. The Melon Leasing property is located approximately 1/2 mile east of the New Jersey Turnpike, (northeast of Exit 15E), and 1/4 mile north of the Pulaski Skyway.

2.2 Geology and Topography

The Melon Leasing property is located in the Triassic Lowlands of the Piedmont Province, one of the six provinces included in the Appalachian Highlands physiographic region. The Piedmont Province in New Jersey coincides, for the most part, with the area of Triassic age rocks known as the Newark Supergroup. The formations of the Newark Supergroup comprise a thick sequence of non-marine deposits that accumulated in a rift valley during a phase of the opening of the Atlantic Ocean.

Diabase sills are found interbedded with or intruding the sediments. Most of the topography of the area is due to the outcropping of the diabase or the erosion of the softer sedimentary rock in between. The bedrock underlying the Melon Leasing property consists of the Brunswick Formation (Widmer, 1959). Overlying the bedrock are unconsolidated sediments of Pleistocene and Recent Epochs. The Pleistocene age sediments were deposited by glaciers and glacial melt waters. Recent sediments were and are presently being deposited by streams, such as the adjacent Passaic River.

The Brunswick Formation is the youngest member of the Newark Supergroup. Most of the formation is very fine-grained, thin-bedded, bright-red to reddish-brown shale. In the Newark area, the rocks tend to increase in coarseness toward the northeast in north Newark; the rocks are principally sandstone with interbedded shale (Herpers and Barksdale, 1951).

At the close of the Triassic time, the entire Newark group was tilted towards the northwest. In the process, they were faulted and greatly fractured. Numerous well-developed fractures intersect the Brunswick Formation at high angles to bedding, parallel to it, and at intermediate angles. The total thickness of the Triassic age bedrock in the Newark area is unknown but is estimated at about 6,000 to 7,000 feet (Herpers and Barksdale, *1951),* Bedrock was first encountered at a depth of approximately 60 feet at the Syncon Resins property located just south of the S&W site which bounds the Melon Leasing property to the south.

The Pleistocene deposits are of glacial origin. They are predominantly till (a mixture of unconsolidated, unstratified, heterogenous mixture of clay, boulders, and sand) and glacial drift (sand and gravel) that has been sorted and stratified by the action of glacial waters. The character of the Pleistocene deposits varies greatly in the Newark area, but in general, they consist of stratified materials with interbedded lenses of till in the eastern part of the area (Herpers and Barksdale, 1951).

The Recent deposits are found mainly in the tidal marshes or meadowlands along the Passaic River and bordering Newark Bay. They consist primarily of unconsolidated mud and silt with inclusions of peat and other organic materials. Occasional lenses of sand and gravel are also found. They are deposited on top of the Pleistocene sediments by the Passaic and Hackensack Rivers and by smaller streams flowing across the urea. The recent deposits range from a feather edge to 35 feet in thickness (Herpers and Barksdale, 1951).

Much of the Newark Area, including Kearny Point, contains a significant amount of historic fill which had been applied to raise the grade of the natural land surface. The New Jersey Historic Fill Map series, specifically Map HFM-53, is a USGS Quadrangle map that depicts the Kearny Point area, including the Melon Leasing property as areas of known Historic Fill. Fill material at the S&W site just south of the Melon Leasing property, and at the Melon Leasing property have been found to contain cinders, glass, ceramic, brick, coal, wood, concrete, asphalt, and various gravels, sands, silts, and clays. These materials often contain elevated levels of specific compounds as referenced in Table 4-2 of the *TRSR.*

Based on soil boring logs from the S&W Waste, Inc. site and the soil borings advanced at the Melon Leasing property surficial deposits in the area consist of poorly sorted medium to coarse sand with some fine gravel and intermittent layers of silts and clays.. These deposits were observed to extend to a depth ranging between 4 and 8 feet, and may contain up to approximately five feet of fill material. Under this sand and fill layer is gray-black silty clay which grades to a highly plastic clay at 11 to 12 feet below ground surface, extending to a depth of approximately 20 feet below ground surface (bgs). Beneath this clay is a 10-foot medium sand layer, overlying a deep silty clay/very fine sand layer. Bedrock has been encountered in the region (Syncon property) at approximately 60 feet bgs.

The topography of the Melon Leasing property is level and located at less than 10 feet above sea level. A very slight slope towards the Passaic River was observed. The Federal Insurance Administration has indicated that all or a portion of the Melon Leasing property is located in a special or moderate flood hazard area.

2.3 Hydrogeology/Hydrology

The Brunswick Formation contains the bedrock aquifer beneath the Melon Leasing property. For all practical purposes, the Brunswick Formation is an impermeable rock, but is however a generally reliable source of small to moderate supplies of groundwater. Water is derived from cracks and fissures, whether they are joints, bedding planes, or faults. Virtually all groundwater in the formation occurs in the fractures in the weathered zone.

The Pleistocene deposits are a major aquifer in the area. Under favorable circumstances, they yield water in substantial quantities. They also act to recharge the underlying bedrock aquifer in the Brunswick Formation.

The recent deposits, which form the shallow aquifer at the Melon Leasing property, are of minor importance hydrogeologically, as their permeability is relatively low. Their main importance is as a barrier to salt water contamination of the underlying Pleistocene deposits.

Groundwater near the Melon Leasing property was investigated as part of a Remedial Investigation completed by Sadat Associates, Inc. in April 1995 for the S&W facility just south of the Melon Leasing property. As stated previously in this report, S&W Waste leased a portion of the Melon Leasing property, which was used for the former QA Dock. Information provided in that Remedial Investigation Report showed that the local direction of groundwater flow is to the west, towards the Passaic River, while the regional groundwater flow direction is to the south, towards the confluence of the Passaic and Hackensack Rivers. Groundwater in the area has been found extremely close to the ground surface, and may contain various volatile and semi-volatile organic compounds above New Jersey's *Groundwater Quality Standards* due to a regional groundwater contamination problem in the South Kearny area.

The Melon Leasing property is situated on Kearny Point, between the Passaic and Hackensack Rivers. The Passaic forms the western boundary of the Melon Leasing property; the Hackensack is located approximately 1 mile east of the center of the Melon Leasing property. The confluence of these two rivers is approximately 1.5 miles south of the Melon Leasing property. As noted above, the Melon Leasing property is within a special or moderate flood hazard area. A review of the National Wetlands Inventory map for the Melon Leasing property indicated no wetlands on the property.

3.0 AREAS OF ENVIRONMENTAL CONCERN

Based on discussions with Melon Leasing Corporation personnel and information obtained from the *Preliminary Assessment Report* (May 2000), the following potential areas of concern were identified at the Melon Leasing property. The NJDEP subsequently commented on these AOC's in the NJDEP's May 22, 2006 correspondence. Each AOC was discussed in the August 22, 2006 RIW.

- Area A: Former S&W Waste, Inc. – Quality Assurance Dock
- Area B: Site-wide Surficial Debris
- Area C: Site-wide Historic Fill
- Area D: Former Surface Water Discharge from S&W Waste, Inc.
- Area E: Hess Pipeline

3.1 Area A: Former S&W Waste, Inc. -Quality Assurance Dock

From approximately 1984 through 1989, S&W Waste, Inc. leased a portion of the Melon Leasing property. It should be noted that S&W Waste, Inc., has since been sold and now operates under the name of Clean Earth. Clean Earth does not use the Melon Leasing Property. S&W Waste, Inc. used the leased portion of the Melon Leasing property for parking, and also installed a Quality Assurance Dock ("QA dock") in the northeast corner. This dock consisted of a semi-portable assembly of four 8x40 foot standard steel frame flatbed trailers fastened together to form a 16 x 80-foot dock. The dock was surfaced with ½-inch plywood. The dock was used as a location for the collection of samples of incoming waste prior to its treatment or disposal by S&W. The entire potential area of concern is limited to a small area of approximately 40 by 100 feet.

In May 1988, NJDEP required that the QA dock be properly closed and that a new dock be constructed on S&W's primary facility on Lots 14 and 14A. As part of the closure, a sampling plan which indicated the collection 10 samples for TCL/TAL analyses was reviewed as part of the May 2000 *Preliminary Assessment*. Apparently, eight samples were collected around the dock in September 1989, and the closure report was apparently filed on August 27, 1991.

In correspondence dated September 9, 1991, the NJDEP's Hazardous Waste Regulation Element indicated that "delisting of S&W's old quality control dock can only take place after the soil contamination in the area of this unit has been remediated to a level acceptable to the Department." It is unclear what specific contaminants were being referred to by the NJDEP. A few weeks later, on October 7, 1991, the NJDEP indicated that the case was being transferred to the NJDEP's Bureau of Planning and Assessment.

As noted by a representative of Melon Leasing Corporation, in 1986, a spill of approximately 5 gallons of paint or resin occurred in the area of the former QA dock. As a follow-up to this spill, soil samples were apparently collected which indicated the presence of dioxins and furans. While a report of this sampling event could not be found, laboratory data pages within the file indicate that on April 1, 1991, 4 samples collected in this area show the presence of dioxins and furans at levels above that which the NJDEP would ordinarily permit to remain on-site. A revised summary of this data was presented in Appendix 2 of the RIW, as requested in the NJDEP's May 22, 2006 correspondence. No actions regarding the spill, including remediation and/or regulatory follow-up, were identified.

The RIW proposed collection of samples from locations around the former QA dock with soil samples to be collected from two separate intervals in an attempt to attain vertical delineation. The proposed sampling was approved by the NJDEP in the March 22, 2007 RIW Approval and implemented during field work on the week of April 3, 4 and 5, 2007.

During field work conducted on April 4, 2007, Ms. Donna Gaffigan of the NJDEP informed AccuTech that she suspected that some of the contamination detected in previous sampling at the former QC Dock was migrating from the adjoining property to the north, and identified the former operations on that site as National Naphthalene Company, and National Chlorine Chemical Company. This information is consistent with information provided in the Preliminary Assessment Report. In addition, Mr. William Moscatello, the president of Melon Leasing Corporation, informed AccuTech that prior the period that S&W Waste leased the Melon Leasing property, the adjoining property to the north was occupied by a company that produced mothballs. The production of mothballs includes the use of naphthalene and/or 1,4-Dichlorobenzene. According to Mr. Moscatello, bulk rail cars were brought in along the rail spur along the north property boundary of the Melon Leasing property, and off loaded into storage tanks adjacent to the property boundary. A summary of the soil sampling laboratory analytical results and a discussion of the potential linkage of these chemicals and the compounds identified during the soil sampling program will be discussed in Sections 5 and 6 of this RIR.

3.2 Area B: Site-Wide Surficial Debris

Debris has been observed at the Melon Leasing property, including several tires, pallets, cardboard, and windblown litter. Melon Leasing Corporation has indicated; however, that as a condition of the leases executed with its tenants, cleanup of debris within the leased areas is required, and failure to do so results in deductions from the security deposits and subsequent cleanup by Melon. As of the preparation date of this report, it has been reported that much if not all of the surficial debris has been removed. No further actions relative to the surface debris has been proposed at this time. Also, none of the observed debris appears to present a threat to the environment or human health, and this condition does not represent an area of concern.

The RIW proposed no further investigation of this AOC, which was approved by the NJDEP in the march 22, 2007 RIW Approval.

3.3 Area C: Site-Wide Historic Fill

It is known that in the vicinity of the Melon Leasing property, specifically at the S&W Waste, Inc. and Syncon Resins sites to the south, historic fill was used to grade the land. It is therefore suspected that fill is present on Melon Leasing property as well.

An investigation of historic fill was performed at the S&W Waste site at Lots 14 and 14A in 1995 as part of a Remedial Investigation. The results of the investigation showed that metals and semi-volatile organic compounds in the soil appear to be attributable to background levels in the South Kearny area and/are associated with the historic fill used to grade that site. This conclusion was supported using statistical analyses presented in the April 1995 *Remedial Investigation Report*, on-site and background soil sampling data, well logs, and evaluations of historic site use. It is presumed that the same conclusions regarding historic fill may be true of the Melon Leasing property, Lot 15/15K, which is immediately adjacent to the S&W Waste facility.

In addition to the above, the TCL / TAL samples collected near the QA dock in September 1989 identify the presence of semi-volatile organic compounds and metals which could be attributable to historic fill.

The RIW proposed sampling the entire site in order to delineate the extent of Historic fill across the Melon Leasing property. The proposed sampling was approved by the NJDEP in the March 22, 2007 RIW Approval and implemented during field work on the week of April 3, 4 and 5, 2007. A discussion and summary of the laboratory analytical results of the Historic Fill investigation is included in Section 5 of this RIR.

3.4 Area D: Former Surface Water Discharge from S&W Waste, Inc.

During an NJDEP inspection of S&W Waste, Inc. on September 26, 1985, it was reported that rainwater with an oily sheen was observed "rushing through the main gate to the adjacent PSE&G lot and sinking there into the ground." As a result, a Notice of Violation was issued for violation of NJAC 7:1E-4.7(c)1. A December 30, 1985 NJDEP memorandum indicated that S&W Waste would be required to collect rainwater as a condition of their permit (Part B Submittal).

Melon Leasing Corporation reported that shortly after the above event, the drainage conditions at S&W Waste were modified to prevent storm water flow onto the PSE&G property. These modifications include grading, lining, and capping the S&W Waste property in this area. The grading included elevating, pitching, and paving the driveway through the main gate such that all storm water would drain back towards the S&W Waste property. General Permit #NJ0121525 was also put in place by S&W to address the storm water. However, even at the time of the reported violation, storm water on the S&W site had been directed to a storm water basin and, when necessary, pumped and disposed at the DuPont facility in Southern New Jersey. This storm water, which consisted of run-off from traffic areas only (non-processing areas), was non-hazardous and complied with the permit limits set in Dupont's approval #2551 for acceptance of the water. The flow onto the PSE&G site observed in September 1985 was due to unusually high amounts of precipitation which resulted in an overflow of the basin.

As noted above, the discharge from S&W Waste no longer exists, and the potentially affected area of the PSE&G site near the main gate has been graded and paved. As such, an ongoing source of potentially contaminated storm water does not exist, and grading of this area may have mitigated any impacts to this area, if such impacts in fact occurred.

The RIW proposed collection of soil samples from four locations around the former surface water discharge location. The proposed sampling was approved by the NJDEP in the March 22, 2007 RIW Approval and implemented during field work on the week of April 3, 4 and 5, 2007. A discussion and summary of the laboratory analytical results of the former Surface Water Discharge location investigation is included in Section 5 of this RIR.

3.5 Area E: Hess Pipeline

Two (2) underground pipelines operated by Amerada Hess are present along the northern portion of the Melon Leasing property. An NJDEP inspection report dated June 4, 1986, reported that soils excavated near the pipeline were observed to have "a strong odor of coal tar or naphthalene-like product," and the issue was referred to NJDEP-BEERA as a potential coal gas site. No follow-up regarding this issue was identified in NJDEP or client files. A November 6, 1989 inspection noted "a pool of rain water with a heavy layer of black oily substance on the middle-northern area of PSE&G's lot." This spill was cleaned during the NJDEP's inspection, but the source of the spill was not identified, and no samples were apparently collected.

Because these pipelines are the responsibility of Amerada Hess, they are not considered a Melon Leasing Corporation area of concern. The RIW proposed no further investigation of this AOC, which was approved by the NJDEP in the march 22, 2007 RIW Approval.

APPENDIX 3
LABORATORY DATA SUMMARIES

Table 3
QA Dock Soil Samples – BNA Analysis 4/3/07

Sample ID Depth	QA-1A 0.5-1.0	QA-1B 2.5-3.0	QA-2A 3.5-4.0	QA-2B 7.5-8.0	QA-3A 2.0-2.5	QA-3B 3.5-4.0	QA-4A 3.5-4.0	QA-4B 7.5-8.0	QA-5A 3.0-3.5	QA-5B 3.5-4.0	QA-6A 3.5-4.0	QA-6B 7.5-8.0	RDCSCC	NRDCSCC	IGWSCC
Phenol	ND	1.28 j	ND	ND	ND	1.68	ND	ND	ND	ND	2.09 j	ND	10000	10000	50
1,3-Dichlorobenzene	ND	44.2	~~214~~	17.5 j	ND	59.1	14.5	.387 j	76.2	.239 j	18.2	**150**	5100	10000	100
1,4-Dichlorobenzene	ND	63.2	**53,000**	**281**	ND	**242**	43.1	2.18	**1,200**	.97 j	57.7	**2,710**	570	10000	100
1,2-Dichlorobenzene	ND	**99.7**	**14,900**	**221**	ND	**190**	41.5	3.68	**439**	.989 j	**79.3**	**1,300**	5100	10000	50
2-Methylphenol	ND	ND	ND	ND	ND	2.78	ND	ND	ND	ND	ND	ND	2800	10000	R
1,2,4-Trichlorobenzene	ND	34.9	ND	13.9 j	ND	42.9	7.77	.401 j	54.9 j	.922 j	50.4	**107**	68	1200	100
2,4-Dichlorophenol	ND	ND	**26.3 j**	ND	ND	2.76	ND	ND	ND	ND	4.19	ND	170	3100	10
Naphthalene	ND	24.2	**53,500**	**466**	ND	**149**	2.73 j	12	**6,240**	2.89	32.7	**7,250**	230	4200	100
2-Methylnaphthalene	ND	ND	262	33.2	ND	2.22	ND	.134 j	16.4 j		5.53	44.9 j	NCS	NCS	NCS
2,4,6-Trichlorophenol	ND	1.99 j	**250**	13.6 j	ND	4.15	ND	ND	ND	ND	**34.1**	ND	62	270	10
Acenaphthylene	ND	ND	ND	ND	ND	.4 j	ND	ND	ND	ND	ND	ND	NCS	NCS	NCS
Acenaphthene	ND	ND	ND	31	ND	.88 j	ND	.276 j	ND	ND	ND	ND	3400	10000	100
Dibenzofuran	ND	ND	47.6 j	23.4	ND	2.43	ND	.252 j	ND	ND	21.4 j	ND	NCS	NCS	NCS
Fluorene	ND	ND	ND	32.3	ND	1.09 j	ND	.360	ND	ND	ND	ND	2300	10000	100
Hexachlorobenzene	.228 j	**121**	**456**	**38**	ND	**166**	**5.21 j**	ND	**251**	.421 j	**3.51**	**142**	.66	2	100
Pentachlorophenol	ND	ND	**89.1 j**	**9.14**	ND	.528 j	ND	.423 j	ND	ND	**14**	ND	6	24	100
Phenanthrene	ND	ND	57.1 j	125	ND	6	ND	3.27	ND	.354 j	5.09	ND	NCS	NCS	NCS
Anthracene	ND	ND	ND	31.1	ND	3.1	ND	1.25	ND	ND	ND	ND	10000	10000	100
Carbazole	ND	ND	ND	ND	ND	.78 j	ND	ND	ND	ND	ND	ND	NCS	NCS	NCS
Fluoranthene	.281 j	ND	ND	87.5	2.15 j	7.45	2.19 j	3.9	ND	1.17	6.07	ND	2300	10000	100
Pyrene	.292 j	ND	ND	79.9	2.11 j	9.65	2.29 j	3.6	ND	1.23	6.44	ND	1700	10000	100
Benzo(a)Anthracene	.20 j	ND	ND	**34.1**	**1.28 j**	**3.54**	**1.54 j**	**1.64**	ND	.807 j	**2.72 j**	ND	.9	4	500
Chrysene	.235 j	ND	ND	**25.3**	ND	3.87	ND	1.3	ND	.887 j	2.91 j	ND	9	40	500
Bis(2Ethylhexyl)Phthalate	Nd	ND	ND	ND	ND	1.24 j	1.21 j	ND	ND	ND	ND	ND	49	210	100
Benzo(b)Fluoranthene	.239 j	ND	ND	**16.7 j**	ND	**3.43**	**1.71 j**	**1.07**	ND	**1.22**	**2.29 j**	ND	.9	4	50
Benzo(k)Fluoranthene	.289 j	ND	ND	**29.3**	ND	**3.27**	**1.7 j**	**1.17**	ND	**1.18**	**2.64 j**	ND	.9	4	500
Benzo(a)Pyrene	.244 j	ND	ND	**24.4**	**1.22 j**	**3.36**	**1.85 j**	**1.14**	ND	**.775 j**	**2.08 j**	ND	.66	.66	100
Indeno(1,2,3-CD)Pyrene	ND	ND	ND	**9.79 j**	ND	**1.81**	ND	.478 j	ND	.675 j	**1.28 j**	ND	.9	4	500
Dibenz(A,h)Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	.66	.66	100
Benzo(g,h,i)Perylene	ND	ND	ND	9.4 j	ND	1.92	ND	.534 j	ND	.712 j	1.11 j	ND	NCS	NCS	NCS
TIC's	1.77 j	211 j	4490 j	417.9 j	4.78 j	193.18 j	39.53 j	9.68 j	179.4	4.33 j	159.1 j	263 j			

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 3 - Continued
QA Dock Soil Samples – PPM-13 Analysis 4/3/07

Sample ID Depth	QA-1A 0.5-1.0	QA-1B 2.5-3.0	QA-2A 3.5-4.0	QA-2B 7.5-8.0	QA-3A 2.0-2.5	QA-3B 3.5-4.0	QA-4A 3.5-4.0	QA-4B 7.5-8.0	QA-5A 3.0-3.5	QA-5B 3.5-4.0	QA-6A 3.5-4.0	QA-6B 7.5-8.0	RDCSCC	NRDCSCC	IGWSCC
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110	4100	NCS
Arsenic	2.52	7.64	10.5	1.8	3.57	**28.8**	11.6	ND	5.01	5.74	9.59	ND	20	20	NCS
Beryllium	.487	**1.36**	**7.66**	ND	.289	.653	.961	ND	.308	ND	.298	ND	2	2	NCS
Cadmium	ND	ND	ND	ND	ND	1.41	ND	ND	ND	ND	ND	ND	39	100	NCS
Chromium	20.5	41.6	49.6	2.79	48.9	167	59.4	17	49.6	5.06	5.78	ND	240	6100	NCS
Copper	49	101	273	2.15	94.1	108	53.6	2.82	89.3	5.65	10.3	9.83	600	600	NCS
Nickel	18.8	104	388	1.57	35.6	31.9	35.9	3.17	26.8	2.82	6.53	1.54	250	2400	NCS
Lead	26.4	**2540**	**1210**	23.1	81.8	**647**	159	5.64	**710**	230	81.8	56	400	600	NCS
Antimony	ND	**352**	**1250**	**41.1**	ND	**753**	**272**	**30.5**	**865**	**49**	**33.2**	**77.4**	14	340	NCS
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.51	ND	63	3100	NCS
Thallium	ND	ND	**3.28**	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	2	NCS
Zinc	51.6	273	620	3.05	156	283	182	2.19	294	9.12	8.61	ND	1500	1500	NCS
Mercury	ND	4.24	8.51	.169	.222	2.38	1.62	ND	4.39	.169	.392	.708	14	270	NCS

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 3A
Laboratory Analytical Results Summary - Dioxins & Furans
4/3/2007

Sample ID: Lab ID: Matrix: Analysis: Units:	QA-1B L2277607-2 soil dioxin/furan (pg/g)	Results adjusted to ppb	TEF adjusted results (ppb)	QA-2A L2277607-3 soil dioxin/furan	Results adjusted to ppb	TEF adjusted results (ppb)	QA-2B L2277607-4 soil dioxin/furan	Results adjusted to ppb	TEF adjusted results (ppb)	QA-3B L2277607-6 soil dioxin/furan	Results adjusted to ppb	TEF adjusted results (ppb)	Toxicity Equivalence Factor	NJDEP Soil Cleanup Criteria (ppb)	
														Uncontrolled	Controlled
2,3,7,8-TCDD	4580	4.58	**4.58**	*3020*	3.02	**3.02**	*1220*	1.22	**1.22**	2040	2.04	**2.04**	1	1	20
1,2,3,7,8-PeCDD	9450	9.45	**9.45**	4780	4.78	**4.78**	2970	2.97	**2.97**	2890	2.89	**2.89**	1	1	20
1,2,3,4,7,8-HxCDD	5800	5.8	0.58	3990	3.99	0.399	3530	3.53	0.353	2090	2.09	0.209	0.1	1	20
1,2,3,6,7,8-HxCDD	10800	10.8	**1.08**	10600	10.6	**1.06**	11100	11.1	**1.11**	4380	4.38	0.438	0.1	1	20
1,2,3,7,8,9-HxCDD	*10300*	10.3	**1.03**	43900	43.9	**4.39**	*31400*	31.4	**3.14**	*2840*	2.84	0.284	0.1	1	20
1,2,3,4,6,7,8-HpCDD	44500	44.5	0.445	32700	32.7	0.327	34600	34.6	0.346	16200	16.2	0.162	0.01	1	20
OCDD	85500	85.5	0.02565	74500	74.5	0.02235	64500	64.5	0.01935	47300	47.3	0.01419	0.0003	1	20
2,3,7,8-TCDF	18000	18	**1.8**	20300	20.3	**2.03**	18500	18.5	**1.85**	6150	6.15	0.615	0.1	1	20
1,2,3,7,8-PeCDF	110000	110	**3.3**	167000	167	**5.01**	375000	375	**11.25**	32600	32.6	0.978	0.03	1	20
2,3,4,7,8-PeCDF	174000	174	**52.2**	559000	559	**167.7**	628000	628	**188.4**	83700	83.7	**25.11**	0.3	1	20
1,2,3,4,7,8-HxCDF	1880000	1880	**188**	12700000	12700	**1270**	ND			988000	988	**98.8**	0.1	1	20
1,2,3,6,7,8-HxCDF	411000	411	**41.1**	1400000	1400	**140**	ND			174000	174	**17.4**	0.1	1	20
2,3,4,6,7,8-HxCDF	106000	106	**10.6**	263000	263	**26.3**	ND			44800	44.8	**4.48**	0.1	1	20
1,2,3,7,8,9-HxCDF	30200	30.2	**3.02**	126000	126	**12.6**	ND			16000	16	**1.6**	0.1	1	20
1,2,3,4,6,7,8-HpCDF	7380000	7380	**73.8**	32100000	32100	**321**	ND			4130000	4130	**41.3**	0.01	1	20
1,2,3,4,7,8,9-HpCDF	105000	105	**1.05**	668000	668	**6.68**	ND			60900	60.9	0.609	0.01	1	20
OCDF	12200000	12200	**3.66**	75700000	75700	**22.71**	ND			9530000	9530	2.859	0.0003	1	20

(italicized results are estimated values)
pg/g -parts per trillion
ppb -parts per billion
ND -not detected above method detection limits
TEF -toxicity equivalence factor (WORLD HEALTH ORGANIZATION 2005)

Sample ID: Lab ID: Matrix: Analysis: Units:	QA-4A L2277607-7 soil dioxin/furan (pg/g)	Results adjusted to ppb	TEF adjusted results (ppb)	QA-5A L2277607-9 soil dioxin/furan (pg/g)	Results adjusted to ppb	TEF adjusted results (ppb)	QA-6A L2277607-11 soil dioxin/furan (pg/g)	Results adjusted to ppb	TEF adjusted results (ppb)	QA-6B L2277607-12 soil dioxin/furan (pg/g)	Results adjusted to ppb	TEF adjusted results (ppb)	Toxicity Equivalence Factor	NJDEP Soil Cleanup Criteria (ppb)	
														Uncontrolled	Controlled
2,3,7,8-TCDD	ND			6450	6.45	**6.45**	ND			4370	4.37	**4.37**	1	1	20
1,2,3,7,8-PeCDD	ND			11500	11.5	**11.5**	ND			7860	7.86	**7.86**	1	1	20
1,2,3,4,7,8-HxCDD	ND			6880	6.88	0.688	ND			4760	4.76	0.476	0.1	1	20
1,2,3,6,7,8-HxCDD	ND			13000	13	**1.3**	ND			9210	9.21	0.921	0.1	1	20
1,2,3,7,8,9-HxCDD	ND			6010	6.01	0.601	ND			4740	4.74	0.474	0.1	1	20
1,2,3,4,6,7,8-HpCDD	3760	3.76	0.0376	49400	49.4	0.494	ND			36100	36.1	0.361	0.01	1	20
OCDD	8220	8.22	0.002466	106000	106	0.0318	ND			80000	80	0.024	0.0003	1	20
2,3,7,8-TCDF	*1270*	1.27	0.127	13400	13.4	**1.34**	ND			8870	8.87	0.887	0.1	1	20
1,2,3,7,8-PeCDF	7520	7.52	0.2256	76200	76.2	**2.286**	ND			39100	39.1	**1.173**	0.03	1	20
2,3,4,7,8-PeCDF	17000	17	**5.1**	209000	209	**62.7**	832	0.832	0.2496	126000	126	**37.8**	0.3	1	20
1,2,3,4,7,8-HxCDF	191000	191	**19.1**	1990000	1990	**199**	12300	12.3	**1.23**	1090000	1090	**109**	0.1	1	20
1,2,3,6,7,8-HxCDF	37500	37.5	**3.75**	381000	381	**38.1**	2810	2.81	0.281	189000	189	**18.9**	0.1	1	20
2,3,4,6,7,8-HxCDF	10100	10.1	**1.01**	103000	103	**10.3**	ND			57600	57.6	**5.76**	0.1	1	20
1,2,3,7,8,9-HxCDF	3280	3.28	0.328	37200	37.2	**3.72**	ND			20900	20.9	**2.09**	0.1	1	20
1,2,3,4,6,7,8-HpCDF	746000	746	**7.46**	6710000	6710	**67.1**	48200	48.2	0.482	3580000	3580	**35.8**	0.01	1	20
1,2,3,4,7,8,9-HpCDF	12700	12.7	0.127	109000	109	**1.09**	ND			58000	58	0.58	0.01	1	20
OCDF	1260000	1260	0.378	14800000	14800	**4.44**	71300	71.3	0.02139	7840000	7840	**2.352**	0.0003	1	20

(italicized results are estimated values)
pg/g -parts per trillion
ppb -parts per billion
ND -not detected above method detection limits
TEF -toxicity equivalence factor (WORLD HEALTH ORGANIZATION 2005)

Table 4
Historical Fill Soil Samples – PAH Analysis 4/3/07 – 4/5/07

Sample ID Depth	HS-1 4.0-4.5	HS-2 4.0-4.5	HS-3 4.5-5.0	HS-4 3.5-4.0	HS-5 5.0-5.5	HS-6 4.5-5.0	HS-7 3.0-3.5	HS-8 3.0-3.5	HS-9 3.0-3.5	HS-10 3.5-4.0	HS-11 2.5-3.0	HS-12 3.5-4.0	RDC SCC	NRDC SCC	IGW SCC
Naphthalene	1.99	0.674 j	0.40 j	0.465 J	1.69 j	86.4	0.457 j	0.421 j	0.622 j	0.072 j	0.674 j	0.146 j	230	4200	100
2-Methylnaphthalene	0.19 J	0.359 j	0.1 j	ND	0.318 j	2.64j	0.141 j	0.152 j	0.054 j	0.063 j	0.447 j	0.034 j	NCS	NCS	NCS
Acenaphthylene	0.02 J	ND	0.317 j	ND	2.08 j	ND	0.499 j	0.314 j	0.847 j	0.068 j	0.420 j	0.141 j	NCS	NCS	NCS
Acenaphthene	ND	0.087 j	0.214 j	ND	0.923 j	0.676 j	0.897 j	1.01 j	0.124 j	0.043 j	1.330 j	ND	3400	10000	100
Fluorene	0.055J	0.087 j	0.209 j	ND	1.26 j	1.42 j	1.15 j	1.12 j	0.222 J	0.045 j	1.610 j	0.0289j	2300	10000	100
Phenanthrene	0.41 j	0.497 j	2.41	2.77 j	4.63	5.51	11.8	9.91	3.22	0.459 j	15.8	0.273 j	NCS	NCS	NCS
Anthracene	0.15 j	0.203 j	0.753 j	1.04 j	6.09	1.81 j	3.19 j	3.25	1.47	0.126 j	3.86	0.127 j	10000	10000	100
Fluoranthene	0.388 j	0.496 j	5.03	5.95 j	45.4	4.98	17	18.9	13.1	0.839 j	21.4	1.12	2300	10000	100
Pyrene	0.579 j	0.609 j	6.51	9.21	37.1	4.27 j	27	26.8	18.3	1.18	31.9	1.88	1700	10000	100
Benzo(a)Anthracene	0.266 j	0.338 j	**2.86**	**4.01 j**	**23**	**2.31 j**	**11.5**	**12.4**	**8.24**	0.581 j	**13.5**	**0.944**	.9	4	500
Chrysene	0.309 j	0.687 j	2.93	4.06 j	**20.2**	2.62 j	**10.9**	**11**	**6.96**	0.682 j	**12.9**	0.961	9	40	500
Benzo(b)Fluoranthene	0.283 j	0.340 j	**3.22**	**2.37 j**	**14.3**	**2.31 j**	**8.57**	**10.2**	**5.38**	0.470 j	**12.0**	**1.01**	.9	4	50
Benzo(k)Fluoranthene	0.147 j	0.213 j	**2.49**	**4.31 j**	**21.2**	**2.08 j**	**9.15**	**9.31**	**6.27**	0.585 j	**10.2**	0.671 j	.9	4	500
Benzo(a)Pyrene	ND	ND	**3.12**	**3.99 j**	**22.4**	**2.11 j**	**10.6**	**11.7**	**7.12**	0.605 j	**11.9**	**1.05**	.66	.66	100
Indeno(1,2,3-CD)Pyrene	ND	ND	**1.92**	ND	**10.3**	ND	**6.64**	**7.31**	**4.34**	ND	**7.71**	0.662 j	.9	4	500
Dibenz(A,h)Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	.66	.66	100
Benzo(g,h,i)Perylene	ND	ND	1.98	ND	10.7	ND	7.37	7.96	4.69	ND	8.63	0.764 j	NCS		

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 4 - Continued
Historical Fill Soil Samples – PAH Analysis 4/3/07 – 4/5/07

Sample ID Depth	HS-13 3.5-4.0	HS-14 3.5-4.0	HS-15 3.5-4.0	HS-16 3.5-4.0	HS-17 5.5-6.0	HS-18 2.5-3.0	HS-19 3.0-3.5	HS-20 4.5-5.0	HS-21 2.5-3.0	HS-22 2.5-3.0	HS-23 2.5-3.0	HS-24 2.5-3.0	RDC SCC	NRDC SCC	IGW SCC
Naphthalene	ND	0.838 j	ND	0.016 j	0.042 j	0.079 j	0.208 j	0.138 j	0.0338 J	0.394 J	ND	ND	230	4200	100
2-Methylnaphthalene	ND	0.530 j	ND	ND	ND	0.0164 j	ND	ND	0.115 J	0.142 J	ND	ND	NCS	NCS	NCS
Acenaphthylene	ND	0.137 j	ND	0.013 j	0.0429 j	0.102 j	ND	0.0854 J	0.0482 J	0.216 J	ND	ND	NCS	NCS	NCS
Acenaphthene	ND	2.13	ND	0.0102 j	0.0128 j	ND	ND	0.0618 J	0.034 J	1.24 J	ND	ND	3400	10000	100
Fluorene	ND	2.68	ND	ND	0.0256 j	ND	ND	ND	0.327 J	0.976 J	ND	ND	2300	10000	100
Phenanthrene	ND	20.8	1.43 j	0.077 j	0.207 j	0.185 j	0.560 j	0.53 J	0.534	8.05	0.011 J	ND	NCS	NCS	NCS
Anthracene	ND	5.9	ND	0.0319 j	0.0742 j	0.075 j	ND	0.174 J	0.136 J	2.37	ND	ND	10000	10000	100
Fluoranthene	1.49 j	20.5	1.59 j	0.135 j	0.541	1.2	1.15 j	1.22 J	1.19	14.1	0.0286 J	0.0321 J	2300	10000	100
Pyrene	2.74 j	25.7	2.37 j	0.243 j	0.803	1.69	0.944 j	1.05 J	0.96	11.2	0.0327 J	0.0286 J	1700	10000	100
Benzo(a)Anthracene	ND	**12.3**	ND	0.113 j	0.376	**0.97**	0.608 j	0.624 J	**0.511**	**6.32**	0.017 J	ND	.9	4	500
Chrysene	ND	**10.8**	ND	0.0969 j	0.317 j	0.911	0.784 j	0.515 J	0.489	6.1	0.0099 J	ND	9	40	500
Benzo(b)Fluoranthene	ND	**6.94**	ND	ND	0.271 j	0.828	0.784 j	0.518 J	0.416	**6.05**	0.0935 J	ND	.9	4	50
Benzo(k)Fluoranthene	ND	**9.81**	ND	ND	0.257 j	0.818	0.736 j	0.433 J	0.419	**4.78**	0.01 J	ND	.9	4	500
Benzo(a)Pyrene	ND	**9.0**	ND	0.0891 j	0.359	**0.977**	**0.832 j**	0.553 J	0.440	**5.63**	0.117 J	ND	.66	.66	100
Indeno(1,2,3-CD)Pyrene	ND	**5.61**	ND	ND	0.20 j	0.538	ND	0.224 J	0.168 J	**2.180**	ND	ND	.9	4	500
Dibenz(A,h)Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	0.0648 J	**0.779 J**	ND	ND	.66	.66	100
Benzo(g,h,i)Perylene	ND	5.36	ND	ND	0.237 j	0.626	ND	0.23 J	0.161 J	2.17	ND	ND	NCS		

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 4 - Continued
Historic Fill Soil Samples – Priority Pollutant Metals Analysis 4/3/07 – 4/5/07

Sample ID Depth	HS-1 4.0-4.5	HS-2 4.0-4.5	HS-3 4.5-5.0	HS-4 3.5-4.0	HS-5 5.0-5.5	HS-6 4.5-5.0	HS-7 3.0-3.5	HS-8 3.0-3.5	HS-9 3.0-3.5	HS-10 3.5-4.0	HS-11 2.5-3.0	HS-12 3.5-4.0	RDCSCC	NRDCSCC	IGWSCC
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110	4100	
Arsenic	14.2	27.7	8.48	1.9	3.48	6.76	4.69	3.3	2.31	13.3	10.7	ND	20	20	
Beryllium	0.265	0.697	0.48	0.25	ND	0.349	0.305	0.328	0.237	0.712	0.337	0.273	2	2	
Cadmium	ND	ND	ND	0.61	ND	ND	ND	0.674	ND	ND	0.824	ND	39	100	
Chromium	74.7	16.1	24.2	18.3	10.3	30.3	20.6	18.4	9.09	20	25.3	9.83	240	6100	
Copper	385	52.8	91.4	112	11.4	42.6	74	77.5	27.8	353	55.4	17.1	600	600	
Nickel	122	12.9	11.1	15.5	3.96	32.9	26.4	19.6	7.61	20.4	20.2	7.29	250	2400	
Lead	86.1	48.2	117	102	32.3	129	126	172	30.8	295	**1580**	32.6	400	600	
Antimony	**20.9**	ND	2.96	ND	ND	**68.7**	4.41	ND	ND	11.7	4.67	ND	14	340	
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	63	3100	
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	2	
Zinc	87.3	79.6	63.8	165	14.8	76.3	204	225	69.2	95.8	269	35.9	1500	1500	
Mercury	0.265	0.30	0.256	0.254	ND	0.43	0.129	0.124	ND	ND	0.208	ND	14	270	

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 4 - Continued
Historic Fill Soil Samples – Priority Pollutant Metals Analysis 4/3/07 – 4/5/07

Sample ID Depth	HS-13 3.5-4.0	HS-14 3.5-4.0	HS-15 3.5-4.0	HS-16 3.5-4.0	HS-17 5.5-6.0	HS-18 2.5-3.0	HS-19 3.0-3.5	HS-20 4.5-5.0	HS-21 2.5-3.0	HS-22 2.5-3.0	HS-23 2.5-3.0	HS-24 2.5-3.0	RDCSCC	NRDCSCC	IGWSCC
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110	4100	
Arsenic	ND	ND	3.2	7.87	1.69	2.83	1.63	7.88	3.10	7.6	ND	6.04	20	20	
Beryllium	ND	0.369	0.257	0.377	ND	ND	0.452	0.345	ND	0.414	ND	ND	2	2	
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	39	100	
Chromium	13.7	11	13.1	15	9.09	7.71	16.1	41.1	13.9	36.6	7.92	16.3	240	6100	
Copper	37.1	38.4	57.6	59.6	10.3	11.3	71.7	99.8	22.5	147	31.2	8.83	600	600	
Nickel	11.2	7.78	18.3	14	6.52	5.81	23.6	21.8	10.3	15.8	6.76	6.16	250	2400	
Lead	43.2	160	51.5	633	46.3	22.5	226	283	46.9	269	7.16	35.1	400	600	
Antimony	ND	ND	ND	4.63	ND	ND	ND	9.33	ND	7.01	ND	ND	14	340	
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	63	3100	
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	2	
Zinc	75.1	133	86.2	140	53.5	38.5	171	281	55	158	48.1	22.3	1500	1500	
Mercury	ND	0.213	ND	0.27	ND	0.114	0.258	0.895	0.346	ND	ND	ND	14	270	

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 4 - Continued
Historic Fill Soil Samples – PCB Analysis 4/3/07 – 4/5/07

Sample ID Depth	HS-1 4.0-4.5	HS-2 4.0-4.5	HS-3 4.5-5.0	HS-4 3.5-4.0	HS-5 5.0-5.5	HS-6 4.5-5.0	HS-7 3.0-3.5	HS-8 3.0-3.5	HS-9 3.0-3.5	HS-10 3.5-4.0	HS-11 2.5-3.0	HS-12 3.5-4.0	RDCSCC	NRDCSCC	IGWSCC
Total PCB's	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.49	2	50

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 4- Continued
Historical Fill Soil Samples – PCB Analysis 4/3/07 – 4/5/07

Sample ID Depth	HS-13 3.5-4.0	HS-14 3.5-4.0	HS-15 3.5-4.0	HS-16 3.5-4.0	HS-17 5.5-6.0	HS-18 2.5-3.0	HS-19 3.0-3.5	HS-20 4.5-5.0	HS-21 2.5-3.0	HS-22 2.5-3.0	HS-23 2.5-3.0	HS-24 2.5-3.0	RDCSCC	NRDCSCC	IGWSCC
Total PCB's	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.49	2	50

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 4 - Continued
Historic Fill Soil Samples – TPHC Analysis 4/3/07 – 4/5/07

Sample ID Depth	HS-1 4.0-4.5	HS-2 4.0-4.5	HS-3 4.5-5.0	HS-4 3.5-4.0	HS-5 5.0-5.5	HS-6 4.5-5.0	HS-7 3.0-3.5	HS-8 3.0-3.5	HS-9 3.0-3.5	HS-10 3.5-4.0	HS-11 2.5-3.0	HS-12 3.5-4.0	RDCSCC	NRDCSCC	IGWSCC
TPHC	551	1670	290	3480	159	1950	1720	1580	146	288	1440	566	10000	10000	NCS

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 4 - Continued
Historical Fill Soil Samples – TPHC Analysis 4/3/07 – 4/5/07

Sample ID Depth	HS-13 3.5-4.0	HS-14 3.5-4.0	HS-15 3.5-4.0	HS-16 3.5-4.0	HS-17 5.5-6.0	HS-18 2.5-3.0	HS-19 3.0-3.5	HS-20 4.5-5.0	HS-21 2.5-3.0	HS-22 2.5-3.0	HS-23 2.5-3.0	HS-24 2.5-3.0	RDCSCC	NRDCSCC	IGWSCC
TPHC	5780	202	5110	247	96	106	5730	283	195	304	95.5	99.2	10000	10000	NCS

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 5
Historical Fill Soil Samples – PAH Analysis
Comparison to Historic Fill Maximum and Average Values – Table 4-2, N.J.A.C. 7:26E-4.6

Sample ID Depth	HS-1 4.0-4.5	HS-2 4.0-4.5	HS-3 4.5-5.0	HS-4 3.5-4.0	HS-5 5.0-5.5	HS-6 4.5-5.0	HS-7 3.0-3.5	HS-8 3.0-3.5	HS-9 3.0-3.5	HS-10 3.5-4.0	HS-11 2.5-3.0	HS-12 3.5-4.0	HS MAX	HS AVG.
Benzo(a)Anthracene	0.266 j	0.338 j	2.86	4.01 j	23	2.31 j	11.5	12.4	8.24	0.581 j	13.5	0.944	160	1..37
Benzo(b)Fluoranthene	0.283 j	0.340 j	3.22	2.37 j	14.3	2.31 j	8.57	10.2	5.38	0.470 j	12.0	1.01	110	1.91
Benzo(k)Fluoranthene	0.147 j	0.213 j	2.49	4.31 j	21.2	2.08 j	9.15	9.31	6.27	0.585 j	10.2	0.671 j	93	1.79
Benzo(a)Pyrene	ND	ND	3.12	3.99 j	22.4	2.11 j	10.6	11.7	7.12	0.605 j	11.9	1.05	120	1.89
Indeno(1,2,3-CD)Pyrene	ND	ND	1.92	ND	10.3	ND	6.64	7.31	4.34	ND	7.71	0.662 j	67	1.41
Dibenz(A,h)Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25	1.24

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 5 - Continued
Historical Fill Soil Samples – PAH Analysis
Comparison to Historic Fill Maximum and Average Values – Table 4-2, N.J.A.C. 7:26E-4.6

Sample ID Depth	HS-13 3.5-4.0	HS-14 3.5-4.0	HS-15 3.5-4.0	HS-16 3.5-4.0	HS-17 5.5-6.0	HS-18 2.5-3.0	HS-19 3.0-3.5	HS-20 4.5-5.0	HS-21 2.5-3.0	HS-22 2.5-3.0	HS-23 2.5-3.0	HS-24 2.5-3.0	HS MAX	HS AVG.
Benzo(a)Anthracene	ND	12.3	ND	0.113 j	0.376	0.97	0.608 j	0.624 J	0.511	6.32	0.017 J	ND	160	1..37
Benzo(b)Fluoranthene	ND	6.94	ND	ND	0.271 j	0.828	0.784 j	0.518 J	0.416	6.05	0.0935 J	ND	110	1.91
Benzo(k)Fluoranthene	ND	9.81	ND	ND	0.257 j	0.818	0.736 j	0.433 J	0.419	4.78	0.01 J	ND	93	1.79
Benzo(a)Pyrene	ND	9.0	ND	0.0891 j	0.359	0.977	0.832 j	0.553 J	0.440	5.63	0.117 J	ND	120	1.89
Indeno(1,2,3-CD)Pyrene	ND	5.61	ND	ND	0.20 j	0.538	ND	0.224 J	0.168 J	2.180	ND	ND	67	1.41
Dibenz(A,h)Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	0.0648 J	0.779 J	ND	ND	25	1.24

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 5 - Continued
Historic Fill Soil Samples – Priority Pollutant Metals Analysis
Comparison to Historic Fill Maximum and Average Values – Table 4-2, N.J.A.C. 7:26E-4.6

Sample ID Depth	HS-1 4.0-4.5	HS-2 4.0-4.5	HS-3 4.5-5.0	HS-4 3.5-4.0	HS-5 5.0-5.5	HS-6 4.5-5.0	HS-7 3.0-3.5	HS-8 3.0-3.5	HS-9 3.0-3.5	HS-10 3.5-4.0	HS-11 2.5-3.0	HS-12 3.5-4.0	HS MAX	HS AVG.
Arsenic	14.2	27.7	8.48	1.9	3.48	6.76	4.69	3.3	2.31	13.3	10.7	ND	1098	13.15
Beryllium	0.265	0.697	0.48	0.25	ND	0.349	0.305	0.328	0.237	0.712	0.337	0.273	80	1.23
Cadmium	ND	ND	ND	0.61	ND	ND	ND	0.674	ND	ND	0.824	ND	510	11.15
Lead	86.1	48.2	117	102	32.3	129	126	172	30.8	295	1580	32.6	10700	574
Zinc	87.3	79.6	63.8	165	14.8	76.3	204	225	69.2	95.8	269	35.9	10900	575

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 5 - Continued
Historical Fill Soil Samples – Priority Pollutant Metals Analysis
Comparison to Historic Fill Maximum and Average Values – Table 4-2, N.J.A.C. 7:26E-4.6

Sample ID Depth	HS-13 3.5-4.0	HS-14 3.5-4.0	HS-15 3.5-4.0	HS-16 3.5-4.0	HS-17 5.5-6.0	HS-18 2.5-3.0	HS-19 3.0-3.5	HS-20 4.5-5.0	HS-21 2.5-3.0	HS-22 2.5-3.0	HS-23 2.5-3.0	HS-24 2.5-3.0	HS MAX	HS AVG.
Arsenic	ND	ND	3.2	7.87	1.69	2.83	1.63	7.88	3.10	7.6	ND	6.04	1098	13.15
Beryllium	ND	0.369	0.257	0.377	ND	ND	0.452	0.345	ND	0.414	ND	ND	80	1.23
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	510	11.15
Lead	43.2	160	51.5	633	46.3	22.5	226	283	46.9	269	7.16	35.1	10700	574
Zinc	75.1	133	86.2	140	53.5	38.5	171	281	55	158	48.1	22.3	10900	575

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 6
Surface Water Discharge Area Soil Samples – VOC Analysis 4/3/07

Sample ID Depth	SP-1 2.0-2.5	SP-2 7.0-7.5	SP-3 2.0-2.5	SP-4 2.0-2.5	RDCSCC	NRDCSCC	IGWSCC
Chloromethane	ND	ND	ND	ND	520	1000	10
Vinyl Chloride	ND	ND	ND	ND	2	7	10
Bromomethane	ND	ND	ND	ND	79	1000	1
Chloroethane	ND	ND	ND	ND	NCS	NCS	NCS
Acrolein	ND	ND	ND	ND	NCS	NCS	NCS
Acrylonitrile	ND	ND	ND	ND	1	5	1
1,1-Dichloroethene	ND	ND	ND	ND	8	150	10
Acetone	ND	ND	ND	ND	1000	1000	100
Carbon Disulfide	ND	ND	ND	ND	NCS	NCS	NCS
Methylene Chloride	0.06	ND	ND	ND	520	1000	10
Trans-1,2-Dichoroethene	ND	ND	ND	ND	1000	1000	50
1,1-Dichloroethane	ND	ND	ND	ND	570	1000	10
Vinyl Acetate	ND	ND	ND	ND	NCS	NCS	NCS
2-Butanone	ND	ND	ND	ND	1000	1000	50
CIS-1,2,-Dichloroethene	ND	ND	ND	ND	79	1000	1
Chloroform	ND	ND	ND	ND	19	28	1
1,1,1-Trichloroethane	ND	ND	ND	ND	210	1000	50
Carbon Tetrachloride	ND	ND	ND	ND	2	4	1
Benzene	ND	ND	ND	ND	3	13	1
1,2-Dichloroethane	ND	ND	ND	ND	6	24	1
Trichloroethene	ND	ND	ND	ND	23	54	1
1,2-Dichloropropane	ND	ND	ND	ND	10	43	NCS
Bromodichloromethane	ND	ND	ND	ND	11	46	1
4-Methyl-2-Pentanone	ND	ND	ND	ND	1000	1000	50
Cis-1,3-Dichloropropene	ND	ND	ND	ND	4	5	1
2-Chloroethyl Vinyl Ether	ND	ND	ND	ND	NCS	NCS	NCS
Toluene	ND	ND	ND	ND	1000	1000	500
Trans-1,3-Dichloropropene	ND	ND	ND	ND	4	5	1
1,1,2-Trichloroethane	ND	ND	ND	ND	22	420	1
2-Hexanone	ND	ND	ND	ND	NCS	NCS	NCS
Tetrachloroethene	ND	ND	ND	ND	4	6	1
Dibromochloromethane	ND	ND	ND	ND	110	1000	1
Chlorobenzene	ND	ND	ND	ND	37	680	1
Ethyl Benzene	ND	ND	ND	ND	1000	1000	100
M&P Xylenes	ND	ND	ND	ND	410	1000	67
O-Xylene	ND	ND	ND	ND	410	1000	67
Styrene	ND	ND	ND	ND	23	97	100
Bromoform	ND	ND	ND	ND	86	370	1
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	34	70	1
1,3-Dichlorobenzene	ND	ND	0.047 J	ND	5100	10000	100
1,4-Dichlorobenzene	ND	ND	0.114 J	ND	570	10000	100
1,2-Dichlorobenzene	ND	ND	ND	ND	5100	10000	50
TIC's	ND	ND	0.584 J	ND			

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value

Table 6 - Continued
Surface Water Discharge Area Soil Samples – BNA Analysis 4/3/07

Sample ID Depth	SP-1 2.0-2.5	SP-2 10-1.5	SP-3 2.0-2.5	SP-4 2.0-2.5	RDCSCC	NRDCSCC	IGWSCC
n-Nitrosodimethylamine	ND	ND	ND	ND	140	600	100
Bis(2-Chloroethyl)ether	ND	ND	ND	ND	0.66	3	10
1,3-Dichlorobenzene	ND	ND	ND	ND	5100	10000	100
1,4-Dichlorobenzene	ND	ND	ND	1.06 j	570	10000	100
1,2-Dichlorobenzene	ND	ND	ND	ND	5100	10000	50
Benzyl Alcohol	ND	ND	ND	ND	10000	10000	50
Bis(2-chloroisopropyl)ether	ND	ND	ND	ND	2300	10000	10
Hexachlororethane	ND	ND	ND	ND	6	100	100
N-Nitroso-di-n-propylamine	ND	ND	ND	ND	0.66	0.66	10
Nitrobenzene	ND	ND	ND	ND	28	520	10
Isophorone	ND	ND	ND	ND	1100	10000	50
Bis(2-chloroethoxy)	ND	ND	ND	ND	NCS	NCS	NCS
Benzoic Acid	ND	ND	ND	ND	NCS	NCS	NCS
1,2,4-Trichlorobenzene	ND	ND	ND	ND	68	1200	100
Naphthalene	3.91 j	ND	28.7 j	1.79 j	230	4200	100
4-Chloroaniline	ND	ND	ND	ND	230	4200	NCS
Hexachlorobutadiene	ND	ND	ND	ND	1	21	100
2-Methylnaphthalene	ND	ND	ND	ND	NCS	NCS	NCS
Hexachlorocyclopentadiene	ND	ND	ND	ND	400	7300	100
2-chloronaphthalene	ND	ND	ND	ND	NCS	NCS	NCS
2-Nitroaniline	ND	ND	ND	ND	NCS	NCS	NCS
Acenaphthylene	ND	ND	ND	ND	NCS	NCS	NCS
Dimethylphthalate	ND	ND	ND	ND	10000	10000	50
2,6-Dinitrotoluene	ND	ND	ND	ND	1	4	10
Acenaphthene	ND	ND	ND	ND	3400	10000	100
3-Nitroaniline	ND	ND	ND	ND	NCS	NCS	NCS
Dibenzofuran	ND	ND	ND	ND	NCS	NCS	NCS
2,4-Dinitrotoluene	ND	ND	ND	ND	1	4	10
Fluorene	ND	ND	ND	ND	2300	10000	100
4-Chlorophenyl-phenylether	ND	ND	ND	ND	NCS	NCS	NCS
Diethylphthalate	ND	ND	ND	ND	10000	10000	50
4-Nitroaniline	ND	ND	ND	ND	NCS	NCS	NCS
N-Nitrosodiphenylamine	ND	ND	ND	ND	140	600	100
1,2-Diphylhydrazine	ND	ND	ND	ND	NCS	NCS	NCS
4-Bromophenyl-phenylether	ND	ND	ND	ND	NCS	NCS	NCS
Hexachlorobenzene	ND	ND	ND	ND	0.66	2	100
Phenanthrene	ND	ND	50.6 j	3.61	NCS	NCS	NCS
Anthracene	ND	ND	ND	0.991 j	10000	10000	100
Carbazolo	ND	ND	ND	ND	NCS	NCS	NCS
Di-n-butylphthalate	ND	ND	ND	ND	5700	10000	100
Fluoranthene	ND	ND	93.1	7.52	2300	10000	100
Benzidine	ND	ND	ND	ND	NCS	NCS	NCS
Pyrene	ND	ND	**137**	8.47	1700	10000	100
Butylbenzylphthalate	ND	ND	ND	ND	1100	10000	100
3,3-Dichlorobenzidine	ND	ND	ND	ND	2	6	100
Benzo(a)anthracene	ND	ND	**61 j**	**4.12**	0.9	4	500
Chrysene	ND	ND	**58.8 j**	4.18	9	40	500
Bis(2-ethylhexyl)phthalate	ND	ND	44 j	1.2 j	49	210	100
Di-n-octylphthalate	ND	ND	ND	ND	1100	10000	100
Benzo(b)fluoranthene	ND	ND	**58.1 j**	**3.84**	0.9	4	50
Benzo(k)fluoranthene	ND	ND	**63.8 j**	**4.1**	0.9	4	500
Benzo(a)pyrene	ND	ND	**61.7 j**	**4.16**	0.66	0.66	100
Indeno(1,2,3-cd)pyrene	ND	ND	**38.9 j**	**2.13 j**	0.9	4	500
Dibenz(a,h)anthracene	ND	ND	ND	ND	0.66	0.66	100
Bezno(g,h,i)perylene	ND	ND	44.8 j	2.63 j	NCS	NCS	NCS
TIC's	21.3 J	17.7 J	158 j	2.69			

All results in mg/kg (ppm); ND-Not Detected; NCS – No Criteria Selected; j – Estimated value